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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/600,902      | 07/24/2000  | KEITH LAKER          | KC-043              | 2555             |

34610 7590 03/13/2003

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| EXAMINER |
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COLE, LAURA C

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| ART UNIT | PAPER NUMBER |
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1744

DATE MAILED: 03/13/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/600,902

Applicant(s)

LAKER, KEITH

Examiner

Laura C Cole

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 January 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 and 17-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-10, 17-25 and 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-30 and 32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 26-32 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Newly submitted claim 31 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: This claim is drawn to a method of cleaning coiled tubing with a pipeline pig that is attached to a string for maneuvering during use.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 31 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 26-30 and 32, drawn to a pig for use in a tubular bore and method for cleaning a tubular bore.

Group II, claim(s) 31, drawn to a method of cleaning coiled tubing.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The pipeline pig of group I does not require the use of a pipe string as the method of group II requires.

USPN 5244505 to Allison et al. discloses a method for cleaning a pipe that has a pipe

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string attached whereas USPN 5797993 discloses an expandable pipeline pig assembly that does not require a pipe string.

During a telephone conversation with Randall H. Cherry on 03 February 2003 a provisional election was made with traverse to prosecute the invention of group I, claims 26-30 and 32. Affirmation of this election must be made by applicant in replying to this Office action. Claim 31 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. During a telephone conversation with Randall H. Cherry on 24 February 2003 examiner explained that claim 31 is withdrawn from consideration based on original presentation for prosecution on the merits instead of the restriction requirement discussed on 03 February 2003.

#### ***Claim Objections***

4. Claim 28 is objected to because of the following informalities: Does applicant intend to insert the word "further" between the words "composite" and "includes" in Line 1 to make it clearer that the composite includes the para-aramid fiber produced from poly-paraphenylene terephthalamide (Claim 26) and glass fiber. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 26-30 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 26 Line 2, it is unclear to what is meant by "*generally cylindrical*."

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 26, 29, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Woehleke, USPN 5,797,993.

Woehleke discloses an expandable pipeline pig assembly that has a generally cylindrical elongate body (Column 4 Lines 58-60; Figure 1 (105)), blades mounted on the body (Figures 1, 2, 3 (145) and (155)) that have reaction surfaces (outer circumferential edges of blades located at Figure 3 (305 or 310)) configured to perform a rotational cleaning action for removing of deposits located on an internal surface of a bore (Column 9 Lines 40-47), each blade comprises at least one fluid bypass path through the blade to permit flow (Figure 3 (155)), wherein each blade is manufactured from a composite comprising a para-aramid fiber produced from poly-paraphenylene terephthalamide (herein referred to by its common brand name KEVLAR®) (Column 9 Lines 29-38). There is a plurality of blades (Figure 1 (145) and (155)) and this pair of adjacent blades has a defined void in between (Figure 1). Woehleke further discloses a

method wherein the pig comprises a maximum outer diameter less than the internal diameter of a tubular bore (Abstract; this pig is expandable and retractable so that the outer diameter will be less than the bore diameter in operation), inserting the pig into a tubular bore and providing pressurized fluid to the bore that applies a force to the blades which urges the pig to travel in a generally axial direction, rotate, and orbit substantially parallel to the axis of the tubular bore (Column 7 Line 4 to Column 8 Line 16).

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woehleke, USPN 5,797,993 in view of Nose et al., USPN 5,068,142.

Woehleke discloses all elements previously mentioned, however does not disclose a composite further including carbon or glass fiber.

Nose et al. discloses a fiber-reinforced polymeric resin composite material that comprises at least one of the following reinforcing fibers such as carbon fibers, glass fibers, and wholly aromatic polyamide (aramide) fibers (Column 4 Lines 40-44).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add additional composites to the blades of Woehleke such as carbon or glass fiber to provide a higher thermal stability or mechanical strength as Nose et al. teaches (abstract).

8. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Woehleke, USPN 5,797,993 in view of Knapp, USPN 4,603,449.

Woehleke discloses all elements previously mentioned further including that the body has means for connection to mechanical driving means wherein the spring (Figure 1 (165)) comprises the mechanical driving means and the connection comprises the collar (Figure 1 (130)). Woehleke does not disclose a combination of blades has a watermelon shaped profile.

Knapp discloses a unitized pig body for paraffin removal that comprises discs that are in a watermelon profile so that joints (or irregularities) within a pipeline are effectively cleaned (Figure 1; Column 3 Lines 1-3).

It would have been obvious for one of ordinary skill in the art to modify the profile of Woehleke by adding additional blades of varying diameter to create a watermelon shape as Knapp teaches in order to make the pig more adaptable to a greater variation of bore diameters.

### ***Applicants Arguments***

9. A. The Muirhead device lacks rigidity necessary to remove scale and other hard deposits.

B. Knapp neither discloses nor suggests a pig having relatively rigid blades including KEVLAR®.

C. Kidd neither discloses nor suggests a pig having relatively rigid blades including KEVLAR®.

### ***Response to Arguments***

10. Applicant's arguments A-C have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (703) 305-7279. The examiner can normally be reached on Monday-Thursday, 7am - 4:30pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on (703) 308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-8772 for regular communications and (703) 873-9311 for After Final communications.



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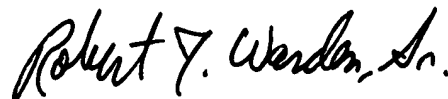
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

LCC

LCC

February 24, 2003



ROBERT J. WARDEN, SR.  
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